

Amendment and Response

Applicant: Peter J. Fritz

Serial No.: 10/081,794

Filed: February 21, 2002

Docket No.: M120.169.103 (54666US006)

Title: METHOD FOR ATTACHING A FASTENER TO A SURFACE TREATING MEMBER, AND SUCH AN ARTICLE HAVING A FASTENER

REMARKS

The following remarks are made in response to the Non-Final Office Action mailed August 25, 2004 ("Office Action"). In the Office Action, the Examiner indicated that because the previously-filed Species Election did not distinctly and specifically point out the supposed errors in the Restriction Requirement, the Species Election has been treated as an Election without traverse.

Also in the Office Action, the Examiner rejected claims 31-40 and 43-52 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention, namely at claim 31, lines 7-8 for lacking proper antecedent basis.

The Examiner rejected claims 43-52 under 35 U.S.C. § 103(a) as being unpatentable over Johnson et al., U.S. Patent No. 3,562,968 ("Johnson") in view of either Doyle et al., U.S. Patent No. 4,599,768 ("Doyle") or Gugle et al., U.S. Patent No. 4,636,124 ("Gugle").

With this Amendment and Response, claim 31 has been amended and claims 41 and 42 have been withdrawn. Claims 31-40 and 43-52 remain pending in the application and are presented for consideration and allowance.

Restriction Requirement

Claims 41 and 42 have been designated as withdrawn in accordance with the Office Action.

35 U.S.C. § 112 Rejections

The Examiner rejected claims 31-40 and 43-52 under 35 U.S.C. § 112, second paragraph. With this Amendment and Response, claim 31 has been amended to correct an unintentional typographical error, namely, replacing the word "treating" with "conditioning." As such, it is believed that rejection of the above-referenced claims on those grounds is no longer applicable, and withdrawal of the rejection on that basis is requested.

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35 U.S.C. § 103 Rejections

In the Office Action, the Examiner explicitly rejected claims 43-52 under 35 U.S.C. § 103(a) as being unpatentable over Johnson in view of Doyle or Gugle. As such, it is assumed that independent claim 31, from which those claims depend, is implicitly rejected on the same grounds. Independent claim 31 relates, in part, to a method for attaching a fastener to a surface conditioning member including inducing relative rotation between a fastener and a surface conditioning member with a layer of thermoplastic adhesive in contact with a planar surface of the fastener and the surface conditioning member so as to soften the layer of adhesive to form a bond between the fastener and the surface conditioning member. Additionally, the method includes stopping the relative rotation between the fastener and the surface conditioning member. For at least the reasons described below, the cited references fail to teach or suggest the limitations of claim 31.

The Examiner indicates at page 4 of the Office Action that one having ordinary skill in the art would be motivated to combine the cited references “in order to provide a more secure connection between the fastener and the surface conditioning member.” However, this motivation is neither taught nor suggested in the prior art cited. In particular, there is no indication in any of the cited references that combination of the spin welding methods taught or suggested by Doyle or Gugle provides “a more secure connection” than other methods of adhering the drive button 40 and abrasive disc 30 of Johnson.

Furthermore, the cited references either teach away from, or simply fail to teach or suggest the limitations of claim 31. For example, Doyle teaches that the workpiece engaging surface 24 is a tapered surface adapted to cause initial contact with a substrate surface at its center. (Doyle at column 2, lines 46-52). This teaches away from a layer of thermoplastic adhesive in contact with a planar surface of a fastener, in contrast to the limitations of claim 31. Furthermore, Doyle teaches a spin welding method without using adhesive between the surface 24 and the substrate surface. Instead, Doyle teaches that the spiral ribs of the workpiece engaging surface 24 directly contact the substrate surface that it is to be bonded to. (Doyle at column 2, lines 50-60). Clearly, a method of spin welding the workpiece engaging surface 24

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directly to the substrate fails to teach or suggest a spin welding method including “inducing relative rotation between a fastener and a surface conditioning member with a layer of thermoplastic adhesive...” as required by the limitations of claim 31.

Gugle also teaches away from the limitations of claim 31. For example, Gugle teaches that an adhesive pellet 32 is contacted with a cavity 30, not a planar surface, when relative rotation is induced. (Gugle at column 2, lines 36-62 and FIG. 1). Indeed, while the Specification of the instant Application indicates that the planar surface 14 of the fastener is planar to allow the layer of adhesive to flow freely between the fastener and the back surface of the surface treating article (Specification at page 9, lines 5-9), Gugle, instead, teaches a set-up including the adhesive pellet 32, the cavity 30, and a series of deflector segments 42 to prevent the adhesive from being driven away from the base 12 and to uniformly distribute the heat-activated adhesive. With this set-up, the adhesive does not contact the planar surface of the deflector segments 42, but instead flows between the deflector segments 42 while contacting the angled friction weld surface 28. (Gugle at column 2, lines 49-62 and FIG. 1). Therefore, one of ordinary skill in the art is taught away from combining the method as taught by Gugle with any planar structure that might otherwise be taught by Johnson.

In light of the clarification presented above, it is believed that none of the cited references, either individually or in combination, teach or suggest the limitations of claim 31. As claims 32-52 depend from claim 31, it is believed that they are patentably distinct from the cited references for reasons similar to those outlined above. As such, the Examiner's rejection is respectfully traversed. It is requested that the Examiner's rejection of claims 31-52 be withdrawn with concomitant allowance and notice to that effect.

As an additional matter, the Applicant believes that the claims depending from independent claim 31 can be further distinguished from the cited references. For example, in rejecting claims 32-34 and 50, the Examiner indicated that the “exact type, amount, and shape of the adhesive would have been obvious to one having ordinary skill in the art at the time the invention was made since the strength of the bond desired would depend upon the exact type, amount, and shape of the adhesive.” (Office Action at page 4). However, it would not be

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obvious to one having ordinary skill in the art to try the different limitations represented by claims 32-34 and 50. As clarified above, Doyle expressly teaches no adhesive and Gugle teaches an adhesive pellet in order to accomplish the stated objectives of controlling adhesive flow and ensuring even adhesive distribution. Thus, the cited references teach away from incorporating a sheet of adhesive (claim 32), a disc of adhesive (claim 33), an annulus of adhesive (claim 34), or coating substantially all of the back surface of the surface conditioning article with the layer of adhesive (claim 50). For at least these additional reasons, it is believed the above-referenced claims are patentably distinct from the cited references and their allowance is warranted.

CONCLUSION

In view of the above, Applicant respectfully submits that pending claims 31-52 are in form for allowance and are not taught or suggested by the cited references. Therefore, reconsideration and withdrawal of the rejections and allowance of claims 31-52 is respectfully requested.

No fees are required under 37 C.F.R. 1.16(b)(c). However, if such fees are required, the Patent Office is hereby authorized to charge Deposit Account No. 50-0471.

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The Examiner is invited to contact the Applicant's representative at the below-listed telephone numbers to facilitate prosecution of this application.

Respectfully submitted,

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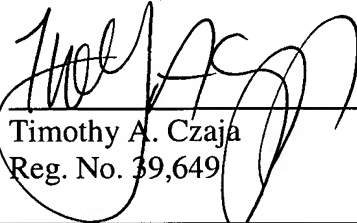
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CERTIFICATE UNDER 37 C.F.R. 1.8:

The undersigned hereby certifies that this paper or papers, as described herein, are being deposited in the United States Postal Service, as first class mail, in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 9th day of November, 2004.

By 

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